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*Peaks on east side of the Angeles Forest from Charlton  
Recreation Area.*

U. S. DEPARTMENT OF AGRICULTURE

U.S. FOREST SERVICE

California Region

Issued 1941





Forest Fire.—Measured in terms of land values dependent on the preservation of forest cover and the number of persons affected by the damage done by the destruction of this cover, it can be said that nowhere in the United States is the prevention of forest fires more important than in the mountain regions of southern California. And nowhere there is so much danger of fires starting. The long, dry seasons, the periodic high winds, the dense and inflammable cover of chaparral, the great number of travelers, campers, and others who use the Angeles National Forest, all contribute to fire hazards of the utmost gravity. In the summer of 1924 a lighted match carelessly thrown aside by a thoughtless picnicker caused a fire which destroyed the cover on 70

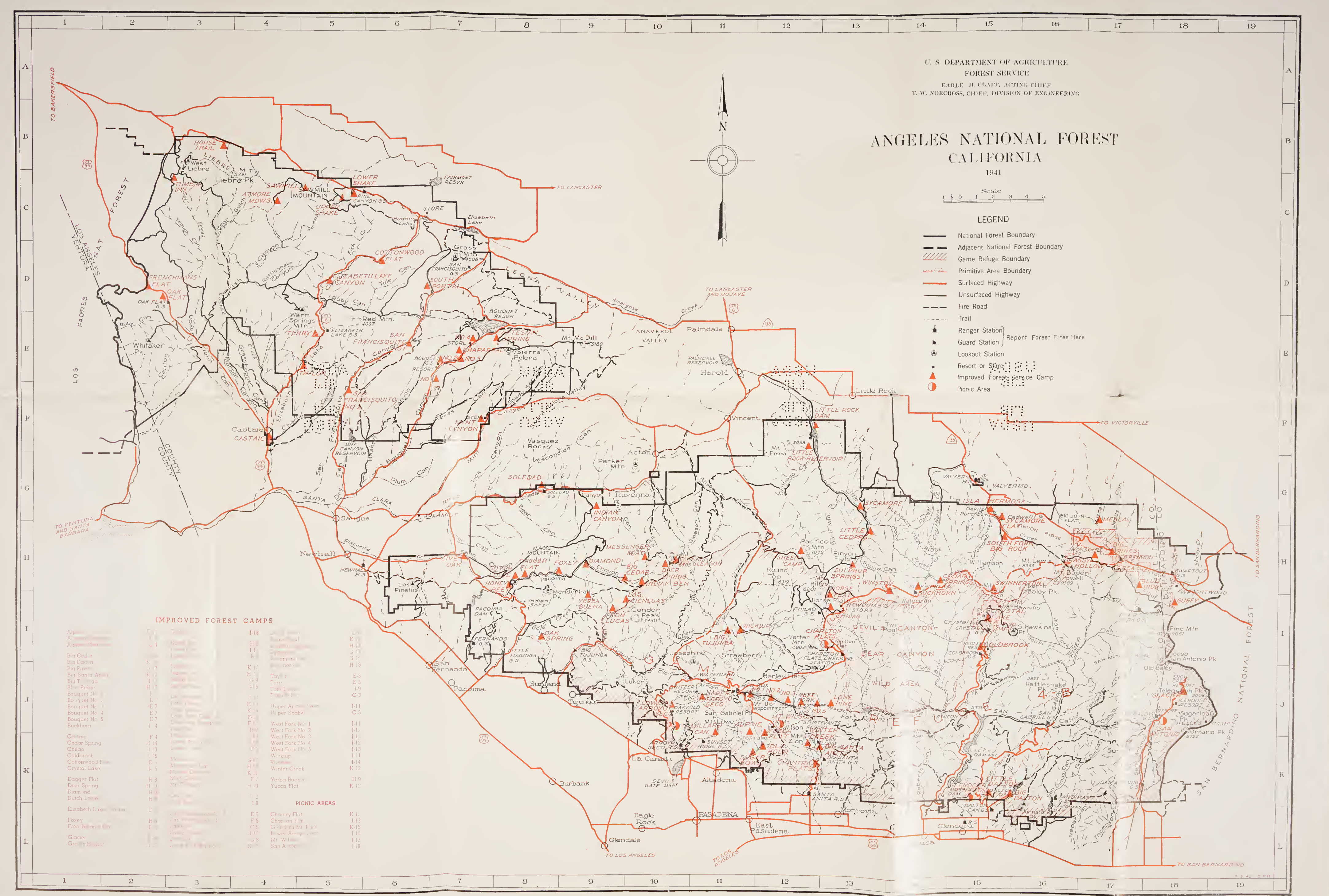
square miles and cost \$300,000 to extinguish. A match of a careless hunter caused the 5,000-acre Pickens Canyon fire in the fall of 1933. Following this fire, and as a direct result of the burn, a flood on New Years 1934 destroyed or damaged 400 homes in the towns of La Crescenta and Montrose, caused untold damage to property in Glendale and the surrounding country, and killed 34 people. Many persons, accustomed to the timber growth of more humid regions, are prone to scoff at the "forests" of chaparral, little realizing their tremendous importance as a protective cover for the drainage basins of streams. Research carried on by the California Forest and Range Experiment Station has proved that in times of heavy precipita-

tion the loss of soil from burned watersheds ranges up to 1,000 times greater than the erosion from unburned areas. The Angeles Forest has one of the finest and most complete fire-control organizations in the United States. Because of the extreme difficulty of controlling fires on this forest, however, prevention of fires is of the utmost importance. For this reason visitors are asked to cooperate with the Forest Service by using the utmost care with fire. Flood Control.—Even though fire is kept out of the forest and the protective chaparral cover maintained, floods sometimes occur. Torrential rains fall on the precipitous mountain slopes with their highly erodible soil and rocks, and when they continue long enough floods

follow. That of 1938 is estimated to have damaged property and agricultural lands to the extent of 35 to 40 million dollars. Definite steps have been taken by Los Angeles County and United States Army Engineers to control floods through construction of great dams and reservoirs in Pacoima, Tujunga, Arroyo Seco, Big Santa Anita, Monrovia, and San Gabriel Canyons. These retard the flood waters and in many cases divert them to spreading grounds where thousands of acre-feet of water sink through the gravel beds into natural underground reservoirs. In addition, the Forest Service plans a great deal of control work through stabilization of soil, replanting of denuded areas and intensified fire protection.

San Dimas Experimental Forest.—People in southern California have long known that chaparral cover had a major effect in preventing soil erosion. But no one knew exactly how great that value was—or the ratio of erosion on burned or otherwise denuded lands to that on lands covered with virgin growths of chaparral. It was not known with any degree of accuracy how the yield of useable water from chaparral-covered lands compared with the amount from denuded lands. Nor had methods of management of vegetation been developed to insure a maximum amount of useable water with a minimum amount of erosion. And so the San Dimas Experimental Forest, containing 17,000 acres within the Angeles National Forest and administered by the California

Forest and Range Experiment Station, was established for the purpose of studying forest influences. This work involves exact measurement of precipitation on mountain drainage basins with varying types of vegetation, analyses of the types of vegetation involved in water losses and control of erosion, and determination of water consumption by native and other types of vegetation. This branch of the California Forest and Range Experiment Station began intensive studies in 1933, and the work will be carried out over a long period of years. Headquarters of the San Dimas Experimental Forest are at Glendora, Calif.









# Recreational Attractions

THE ANGELES CREST.—The Angeles Crest Highway affords the most scenic drive on the forest and is being built solely for its recreational value. One of the greatest attractions near its route is Mount Wilson where the world's second largest telescope is located. The observatory is open to the public every Friday night, when illustrated lectures on astronomy are given. Free admission tickets may be obtained from the Carnegie Institute, 813 Santa Barbara Street, Pasadena. On a clear night, one has a marvelous view of the twinkling and colored lights of Los Angeles and her sister cities, extending east, west, and south for 30 miles. On clear days, the broad expanse of the blue Pacific is visible, as is Catalina Island, 30 miles out to sea. Hotel accommodations are available.

At present, the other main attraction along the Angeles Crest Highway is a major recreation area, where, near the summit of the main divide, Charlton, Chilao, and Horse Flats camp and picnic grounds are located in pine timber at elevations of about 5,000 feet. Now (1941) the highway is open for a distance of 33 miles to Buckhorn. Eventually it will be completed through to Big Pines, following the highly scenic and precipitous crest at an average elevation of 7,000 feet. The Crest Highway intersects Foothill Boulevard at Haskel Avenue in La Canada. (Index K-10.)

*San Gabriel Canyon.*—In the San Gabriel Canyon are two main points of interest. First are the large reservoirs constructed by the city of Pasadena for city water supply and by the Los Angeles Flood Control District for flood control and conservation purposes. Next is Crystal Lake, one of the few natural lakes in the San Gabriel Mountains. This small lake, framed in a beautiful setting of pine, big-cone spruce, and oak, is within Crystal Lake Park, a national-forest area under permit to Los Angeles County. The paved San Gabriel Canyon Road intersects Foothill Boulevard at Azusa (Index L-14), and the distance to Crystal Lake is 22 miles.

*Big Pines Recreation Area.*—Lying at elevations between 6,200 and 7,000 feet and covered by a heavy growth of timber, this area is at the northeast corner of the forest. Like Charlton-Chilao, it is a major recreational area with camp and picnic facilities for large numbers of people. Climate during the summer is ideally cool, and in winter snows lie late on its north slopes and provide opportunities for winter sports. Big Pines is approximately 100 miles from Los Angeles and may be reached by either of two highways—US 66 via Cajon Canyon, or via US 99, US 6, and State 138 through Mint Canyon and Valyermo. Beyond Mint Canyon the route is through desert country past forests of weird Joshua trees, the showy yucca, and orchards of pears, apples, and cherries where the land has been reclaimed by water.

*Devils Punch Bowl.*—Only a few miles south of Valyermo and about 12 miles from Big Pines is one of the most interesting natural areas on the forest—the Devils Punch Bowl. It is a place of sandstone domes, knobs, and pinnacles varying from white to red in color, and at its crest is the Devils Seat—a throne which overlooks the jumbled mass. Though visible from the highway the Devils Punch Bowl can be reached only by foot or horse, the round trip distance by trail being about 6 miles. Winter is the time to see the Punch Bowl, for in summer the temperature is uncomfortably high.

*Other Interesting Drives.*—There are many other interesting drives. From the Glendora Mountain Road which ascends the divide between Dalton and San Gabriel Canyon and is reached through Foothill Boulevard and Glendora, one has a splendid view of the San Gabriel watershed and can also drop into the East Fork of San Gabriel to Camp Bonita, scene of early day gold mining, or continue through to Camp Baldy. Camp Baldy, in San Antonio Canyon, is a resort settlement where in the winter snow-sports enthusiasts congregate. And Mount San Antonio, which rises to its bare, windswept head 10,080 feet into the sky, may be reached by trail by those sufficiently hardy to make this long trip. Other scenic trips are through Little Tujunga and Pacoima Canyons; Placerita Canyon where gold was first discovered in California; Soledad Canyon; Elizabeth Lake Canyon; Boquet Canyon past the Boquet Reservoir; and San Francisquito Canyon which was travelled by early day emigrants coming through the Mojave Desert, and which passes by the remains of the St. Francis Dam. There are many other interesting drives, for most of the Angeles Forest is accessible by road.

*Wild Area.*—The Devils Canyon-Bear Canyon Wild Area contains 56 square miles of high country embracing the entire drainages of Devils, Bear, and Chileno Canyons. It is accessible by trail only, and because it has been set aside as a special recreation ground for those who prefer a primitive and undeveloped wilderness, no public roads or structures will be permitted within the boundaries.

*Wildflowers.*—Along the winding roads in the forest wildflowers bloom during the spring months, those in the high country blooming and maturing much later than those at the low elevations. First to appear are the white blossoms of the ceanothus in the chaparral on the south slopes. Almost simultaneously golden poppies glow in profusion in Mint Canyon and on the vast floor of Antelope Valley. Late in May the deep scarlet stalks of snow plants push upward through the soil, and the white, bell-like blossoms of the yucca are seen on every hill and flat. Pentstemon and daisies grow along the roadside, and in the higher country is the blue and lavender of lupine. And for months at the lower elevations the long blooming prickly phlox displays its colorful deep lavender flowers.

*Hunting.*—With the exception of State Game Refuge 4-B the entire forest is open to hunting. In spite of the large number of hunters, deer seem to be holding their own and about 600 bucks are bagged annually. Favorite hunting grounds are the upper Little Rock Canyon, Liebre and Sawmill Mountains, Sierra Pelona Ridge, Pacoima and Elizabeth Lake Canyons, and Mount Gleason. For the convenience of hunters the Forest Service has established many small campgrounds in addition to those regularly used by the public. State Game Refuge 4-B covers almost entirely the watersheds of the Los Angeles and San Gabriel Rivers, as indicated on the map. Within its boundaries shooting and the possession of firearms are not permitted. Deer are numerous and are frequently seen in the refuge at such places as Mount Wilson, Charlton Flats, and Big Pines.

*Use of Dogs.*—Dogs may be taken into the Angeles as into other national forests, and in the open season one dog per hunter may be used for hunting deer. The State law makes it unlawful to permit a dog to run deer during the closed season. At all times owners are expected to exercise the same control over dogs in the national forests as in towns.

*Firearms and Shooting.*—Except in the refuge, firearms are allowed in the forest, but no shooting is permitted in or near campgrounds, summer home colonies, or other places of habitation. Because of the extremely heavy human use of the Angeles Forest, shooters are requested to learn from forest officers the places in each locality considered unsafe for shooting.

*Fishing.*—Yearlong lakes and streams are few and therefore fishing is limited. Great numbers of fishermen angle on the limited areas available. As a result a large percentage of the fish are caught early in the season and fishing is thereafter only fair. Fair fishing can usually be found in the San Gabriel and its tributaries, Big Santa Anita, Devils Canyon, Little Rock, and Big Rock Creeks. Trout fishing is also available in Crystal Lake and Little Rock Reservoir. Bass are found in Hughes Lake and in Jackson Lake at Big Pines.

*Trail Trips.*—A booklet listing major trails and desirable trail trips may be obtained through request to the forest supervisor. Horses can be rented at Big Pines Camp, Opids Camp, and Crystal Lake for short periods or overnight trips. Guides are available if needed.

*Camp and Picnic Grounds.*—Camp and picnic grounds developed by the Forest Service for free public use number 65 and are located in all main canyons suitable for recreation. Major developments are at Charlton, Chilao, and Horse Flats, and at Big Pines. Each camp unit contains a table and stove; and water, toilets, and garbage disposal facilities are within easy reach. Developments blend in with natural surroundings, and visitors are requested to help keep the areas as nearly as possible in their virgin condition. Locations of camps and picnic grounds are indicated on the map, and detailed information as to the number of facilities available at each camp may be obtained from the forest supervisor.

*Organization Camps.*—There are 25 camps under permit to such organizations as Boy and Girl Scouts, YMCA and YWCA, religious orders, service clubs, and schools on the Angeles. These are permitted and used almost entirely for the purpose of giving children and young people outings at small expense. Los Angeles maintains 4 municipal camps, open only to its citizens, where a vacation can be had at very reasonable rates.

*Summer Homes.*—There are over 1,200 summer homes under permit from the Forest Service on the Angeles. These are located mostly in the canyons on tracts which have been set aside for this purpose. Because of the great need for all useable areas for campgrounds and organization camp use, no new tracts will be subdivided. Those desiring summer homes must therefore obtain lots and purchase improvements from individuals who are giving up their permits. The rentals of the lots are from \$15 to \$25 a year.

*Resorts.*—Resorts having hotel accommodations, cabins, stores, and service stations are located in Boquet Canyon, Arroyo Seco, West Fork of San Gabriel, at Mount Wilson, Chilao, and in Big Santa Anita and San Gabriel, East Fork, San Antonio, and Ice House Canyons. The locations of resorts are shown on the map.

*Winter Sports.*—Ordinarily snow does not reach great depth on the Angeles Forest except at the highest elevations where the mountains are extremely rugged. However, sufficient snow falls almost every year to provide opportunities for winter sports. Because of its northern exposure and fairly high elevation the Big Pines Area is probably most consistently good. Winter sports facilities and accommodations are available at Big Pines, Wrightwood, San Antonio Canyon, and Mount Wilson. In addition to these areas, others where opportunities usually exist are: Charlton-Chilao, Buckhorn and Crystal Lake. Detailed information is contained in a Winter Sports Guide which may be obtained from the forest supervisor.

## Forest Fires, Erosion, Floods

The greatest threat to all resources of the forest is fire. Fire, erosion, and flood go hand in hand, for once the protective binding cover of chaparral is removed by fire, the loose soil and rock on the precipitous mountain slopes begin to erode with the first rains. This material greatly increases the volume of streams and rivers which become a flow of water, mud, and rock. Grinding its way along, this undermines and cuts banks, and tears out roads, bridges, and buildings, doing enormous damage. In addition, the silt flow seals the ordinarily pervious channel bottoms; and water, instead of finding its way into underground reservoirs, rushes off to the sea.



F-404981

Almost 3,000,000 persons visit this forest annually for recreational purposes.



F-381359

Mount Wilson Observatory is one of the man-made attractions to visitors on the Angeles.



F-381390

Big-cone spruce along the Mount Wilson Road.

BELOW LEFT.—Entrance to Charlton-Flats Recreation Area where thousands come for forest outings.

F-404979

BELOW CENTER.—View of the Angeles Crest highway.

F-404978

BELOW RIGHT.—Building a fire line, a tough job in any kind of country.

F-341724



F-404982

RIGHT.—Water is the greatest resource of the Angeles Forest, supplying the very lifeblood of nearby cities and prosperous agricultural areas. Dams, such as this one in San Gabriel Canyon, not only help to hold back the waters for future use but also aid in flood prevention.

F-382996

RIGHT CENTER.—Yucca in bloom, a common sight on the Angeles.

F-341738

EXTREME RIGHT.—Smoke column from fire, the No. 1 enemy of the forest.



# Location, History, Resources

ONLY 15 MILES north of the heart of Los Angeles and immediately behind the Rose Bowl City of Pasadena the San Gabriel Mountains in the Angeles National Forest rise with spectacular abruptness, appearing to reach tremendous heights. Eastward they extend to Cajon Pass where the San Bernardino Mountains begin. Westward they reach to Fernando Pass, and on the north to the Santa Clara Valley and Mojave Desert. North and west is another mountain range—the Liebre—and this too is part of the forest.

Geologists say that the south side of the San Gabriel Mountains is a fault scarp, and on the north the same is true, for along that northern edge is part of the great 530-mile San Andreas Rift. This entire range is an uplifted block, dissected by such deep tortuous canyons as Big Tujunga, Arroyo Seco, and San Gabriel. It is a sea of sharp peaks and knife-like ridges almost devoid of flat lands, and from these mountains flows much of the water that is the life blood of the Nation's fifth largest city. Paradoxically these mountains not only furnish much of the city's life blood, but if misused and swept by fire they threaten, by flood, its very existence.

Extending from the Los Padres National Forest on the west to the San Bernardino National Forest on the east, the Angeles Forest contains 690,554 acres, lying mainly in Los Angeles County. Though the front wall of the mountains appears to ascend to dizzy heights, few of its peaks reach more than 5,000 feet. But beyond these first peaks others rise to 9,000 feet, while Mount San Antonio reaches 10,080 feet.

The San Gabriel Timberland Reserve, which became the Angeles National Forest in 1908, was created by President Harrison on December 20, 1892. It was the first Federal reserve in California. Long before that time, however, use was being made of this area. In 1842, 6 years before Marshal's discovery, gold was found by Don Francisco Lopez in Placerita Canyon, and later that year the first commercial shipment was made.

*View from the Monroe Truck Trail showing forest type and rugged topography.*

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Later, from the gold settlement of Camp Bonita in the rugged canyon of the East Fork of the San Gabriel River, larger amounts were taken. Here also in this little settlement, reached only by steep trails, citizens cast their votes for Abraham Lincoln for President. And just north of the present forest are the Vasquez Rocks, named for the bandit Tiburcio Vasquez, who haunted that region in the 70's.

## NATURAL RESOURCES

*Water.*—Greatest resource of the forest is water. Two important streams, the Los Angeles and San Gabriel Rivers, have their sources within the forest boundaries. Until 1913 these watersheds furnished the entire water supply of Los Angeles. Now additional water is brought from the Sierra Nevada Range and the Colorado River. But even so, more than 25 percent of the county's water, and that the best and cheapest, comes from the Angeles Forest.

Agricultural lands in Los Angeles County are probably as valuable as any in the United States. More than half of the county's 178,000 irrigated acres, which in 1939 produced crops valued in excess of \$70,000,000, is entirely dependent on water from the mountains in the forest.

Those unfamiliar with southern California are likely to be deceived regarding the amount of water the mountains supply, because during the greater part of the year streams are very low or do not run at all. Most of the water, however, falling on the Angeles watersheds, sinks underground through the extremely coarse formation and flows into underground reservoirs of the coastal plain below the mountains. From these reservoirs it is pumped for domestic and agricultural use. Even in periods of high water during the winter much of the water is saved by diverting it to specially constructed spreading grounds where it sinks underground instead of rushing off into the sea. Reservoirs, such as that on Little Rock Creek and in the San Gabriel Canyon, have also been built, and every effort is made to store the greatest possible amount of water because of its vital importance to Los Angeles County.

*Recreation.*—Recreational features of the Angeles Forest differ materially from those in the heavily timbered national forests of northern California. The construction of the mountains themselves is of great interest. From winding roads one obtains marvelous views across sharp ridges and great chasms southward over a great city to the sea and northward across Antelope Valley and the Mojave Desert. Because of the unusual formation of the mountains, their accessibility by road, and proximity to a great metropolitan area, the Angeles National Forest has the largest volume of recreational use of any national forest in the United States. In 1939 it was visited 2,667,900 times for recreational purposes and, in addition, 7,642,800 persons passed through the forest on the major highways. Next to water, recreation is the most important resource of the forest.

*Timber.*—Long ago a sawmill operated in the Big Pines-Wrightwood area, and timber was cut for lumber. But commercial timber now exists only in limited amounts and is of far greater value for the protection



## *Forest Administration*

In complete charge and entirely responsible for administration of the forest is the forest supervisor. His organization consists primarily of staff assistants for fire control, engineering, recreation, and fiscal control, all operating from the supervisor's office, and the district rangers, each directly responsible to the supervisor and in immediate charge of a ranger district. These vary from 65,000 to 250,000 acres in extent. Information can be obtained from the forest supervisor or district rangers. Headquarters are as follows:

<i>Title</i>	<i>Station</i>	<i>Post Office</i>	<i>Map Index No.</i>
Forest Supervisor.....		Room 1443, Federal Bldg., 310 N. Spring Street, Los Angeles, Calif.	
District Ranger..	Newhall R. S.	Newhall, Calif..	H- 5
District Ranger..	Arroyo Seco R. S.	P a s a d e n a, Calif.	K-10
District Ranger..	Santa Anita R. S.	Santa Anita, Calif.	K-12
District Ranger..	.....	Glendora, Calif.	L-15
District Ranger..	V a l y e r m o R. S.	Valyermo, Calif.	G-15

of the watersheds, and as a recreational attraction, than for lumber or other forest products. Therefore, no sales are permitted and no cutting of green timber is allowed. Ninety-six thousand acres in the forest are clothed with ponderosa pine, Jeffery pine, sugar pine, lodgepole pine, incense cedar, big-cone spruce, and white fir. Most of these trees grow on slopes with northern exposures, in the canyon bottoms, or on flats.

*Forage.*—The forage resource is extremely limited. In addition, most of the mountain slopes are too steep and rugged for use by livestock. Danger of erosion, because of grazing, would be extremely high, and human use is too intensive. Less than 400 head of cattle and horses are allowed to graze on the forest.

*Wildlife.*—In spite of the proximity of a huge metropolitan area, wildlife as a productive resource continues to be important, as evidenced by the fact that each year about 600 bucks are taken by hunters. From a recreational standpoint wildlife is also of considerable importance, as the forest is the home of many different kinds of birds and animals. Deer, coyote, fox, and many smaller animals can frequently be seen. Bear and mountain lion are extremely scarce and are seldom observed. Because of the variation in altitude there are several zones of bird life, and from a few of the western lookout stations that extremely rare bird, the California condor, has been seen in flight.

*Minerals.*—Many years ago gold was taken in commercial quantities from Placerita Creek and the San Gabriel Canyon. Other minerals have also been found in small quantities. Production, however, is extremely limited, and a large portion of the forest is closed to mining.



*When starting out alone on a trip in the mountains it is a good plan always to leave word with someone of the route you intend to travel and your destination.*

## *Rules Regarding Fire*

1. Camping and campfires are permitted only in Posted Public Campgrounds.
2. Open fires are permitted only in constructed campfire circles or open grate stoves.
3. In campgrounds not equipped with campfire circles, fires must be built only in stoves provided or in your gasoline stove.
4. Smoking is permitted only in posted public camps and in posted smoking areas.
5. Campfire permits must be secured before camping. These permits are free and may be secured from any forest officer or authorized campfire permit agent.
6. A shovel and ax, as specified on the Campfire Permit, must be in the possession of all parties camping and using either automobile or pack animal transportation.
7. If you are in doubt as to any forest regulation, consult the nearest forest officer.

### *WHEN FIRES OCCUR*

Should you discover a forest fire, put it out, if you can. If you cannot put it out, report it to the forest supervisor, the ranger, the sheriff, or the nearest telephone operator. Locations of supervisor's and rangers' headquarters are indicated on the map.

*Help us to help you protect and perpetuate  
your heritage*

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*Newhall Ranger Station where the latchstring is always out to visitors.*

F-381429





*Because of the extreme forest fire hazard existing almost yearlong on the Angeles National Forest, visitors are requested to use great care with fire. Please observe the special Angeles Forest fire rules listed below. If in doubt, ask the nearest forest officer.*

## *What To Do When Lost*

1. Keep a clear head if lost in the forest or mountains.
2. Stop, sit down, and try to figure out where you are. Use your head, not your legs.
3. If caught by night, fog, or storm, stop at once and make camp in a sheltered place. Gather plenty of dry fuel. Build a fire in a safe place.
4. Don't wander about. Travel only down hill.
5. If injured, choose a clear spot on a promontory if possible, and make a signal smoke.
6. Don't yell, don't run, don't worry—and above all, *DON'T QUIT*.

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